Renewal Considerations for Domain Name Registrants

A Report from the ICANN Security and Stability Advisory Committee (SSAC)
June 2006
About the Security and Stability Advisory Committee

The Security and Stability Advisory Committee (SSAC) is an advisory committee to the Internet Corporation for Assigned Names and Numbers (ICANN).

The Committee’s purpose is to offer independent advice to the ICANN board, the ICANN staff and the various ICANN supporting organizations, councils and committees as well as to the technical community at large on matters relating to the security and integrity of the Internet's naming and address allocation systems. The Committee has no official authority to regulate, enforce or adjudicate. Those functions belong to others. The advice offered by the Committee should be evaluated on its merits, not on the status of the Committee or its members.

The Committee draws its membership from the commercial and not-for-profit sectors. It has broad geographic representation and has representation across industry and academe, including all segments of the domain name system (DNS) community. The committee includes members who operate root servers, generic and country code top-level domain servers, registrars and address registries. Some members are network security experts or researchers. The Committee members serve without pay, each a technical contributor in his or her own organization and in the community at large. An ICANN Fellow also serves on the Committee and is compensated by ICANN.

Because the Committee is composed of people actively working in the field, conflicts of interest arise from time to time. Committee members are expected to declare conflicts of interest, whether actual, potential or apparent, but Committee members are not required or expected to recuse themselves. Whenever Committee members or other contributors work for organizations that may have a vested interest in the matter at hand, the Committee’s practice is for each participant to disclose such relationships and expect the participants to provide technical information without attempting to influence others.

The Committee operates primarily by issuing Reports, Advisories and Comments. These are usually written and edited by the SSAC Fellow, Dave Piscitello under the direction of Committee members. The Reports, Advisories and Comments represent output from the Committee as a whole. Further information about the Committee is posted to the Committee’s Web site at http://www.icann.org/committees/security/. The Appendix contains the current list of members and contributors to this report.
Introduction

This Advisory describes incidents where, by choice or oversight, registrants allowed a domain name registration to expire, anticipating that no harm would come from allowing the registration to lapse. In these and other incidents, a different party registered the domain name, and the activities of the new registrant proved harmful to the interests of the previous registrant.

The purpose of this Advisory is to explain ways in which a domain name may accrue reputational and commercial value. The Advisory uses reported incidents to illustrate that registrants should consider the potential for damage to reputation, material loss, and lost recurring revenue opportunities before allowing a name registration to expire.

As the Advisory illustrates, registrants may not appreciate that expired domain names are commonly registered to another registrant within a few weeks or months of the date of expiry of the domain name registration agreement. The new registrant may not use the domain name for the same purposes as a former registrant. Incidents show that previously registered domain names may be exploited, at the expense of the reputation of a former registrant. In this Advisory we refer to this form unexpected consequence as *reputational harm*.

Domain names, especially those that have been used to establish a web presence, have value based on such criteria as brand recognition, name composition and length, link popularity, pay-per-click potential, name indexing by search engines, and word and phrase popularity. Domain names with even modest revenue potential are quickly re-registered following any renewal grace periods offered by domain name suppliers.

The activities described in this Advisory are different from domain name hijacking. Domain name hijacking refers to the wrongful taking of control of a domain name from the rightful name holder. Incidents representative of common forms of domain name hijacking are discussed and analyzed in a separate report, SSAC 007, Domain Name Hijacking: Incidents, Threats, Risks, and Remedial Actions [1]. In particular, the incidents described in this Advisory take place beyond the 30-Day Deleted Name Redemption Grace Period outlined in [2] and similar grace periods provided by some Country Code Top Level Domain registries (ccTLDs).

The actions recommended to domain name registrants here consider the policies and practices of generic and sponsored TLD Registries that operate under agreements with ICANN that include Redemption Grace Period services. The effects described here may or may not apply to ccTLDs, depending on the policies and practices in place regarding re-registration of previously registered names. In general, in environments where re-use of a previously registered name is prohibited for a lengthy period, the threat described is far less likely. This Advisory is focused on names registered under the rules governing ICANN-accredited registrars and gTLD registries under contract with ICANN.

This Advisory is specifically written for domain name registrants, but is relevant to anyone who is involved with or wishes to become more familiar with issues relating to domain name registration.
Name Registration, Renewal and Deletion (Overview)

For a registrant, the domain name registration process begins at a registrar. Registrars are parties that operate under agreements with ICANN to register domain names on behalf of the registrant (an individual, organization, or company). Technically, each TLD Registry assures uniqueness of a second level label assigned within a TLD; for example, there will only be one label "example" within the com registry, assuring the uniqueness of example.com. When a registrant registers a name, a TLD Registry adds the second level label to a database of domain names assigned and registered within the TLD.

Registrars collect certain information from the registrant of each domain name at the time of registration. This registration record contains contact information for the domain name registrant and for parties who can respond to operational and administrative matters relating to the registered domain name (the technical and administrative contacts of the registration record, respectively). The registrant must also identify the name servers that will host the zone file for the domain. Registration assures that a domain name is unique within a registry of domain names, and grants the registrant the use of the domain name for a specified period of time. Registration also provides contact information that can be used to resolve disputes as well as technical and administrative matters related to the domain name.

A fee for domain name use is collected by a registrar or reseller, and registrants may register names for a term of one or multiple years. When the term of a domain name registration is about to expire, many registrars and resellers will notify registrants in advance, as part of a customer care and retention program. Some registrars and resellers provide auto-renewal services. Registrars and resellers commonly use electronic mail to deliver domain name expiration notices. The notices are sent to one or more of the contact email addresses (administrative, technical, name holder) provided by the registrant when the name is registered. However, registrars and resellers of gTLD registrations are not bound by their agreements with ICANN to make such notifications. The registrant is responsible for providing complete and accurate registration information. One obvious incentive for keeping this information accurate is to prevent a situation where a registrar is unable to notify a registrant that a domain name registration is about to expire.

Most ICANN accredited registrars of gTLD domain names provide some form of grace period after expiry before the domain name is cancelled. Grace periods range from zero to 45 days, with most registrars offering at least 30 days. During this period, registrars may adopt a range of approaches to notify the registrant that a name registration is about to expire, including phoning the registrant, faxing the registrant, postal mail, removing...

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1 Registrars must be accredited by ICANN to register names from gTLDs, but some of the same registrars also provide registration services for certain ccTLDs without any connection to ICANN. However, ccTLD managers (and not ICANN) determine how domain names are registered and make their own arrangements with any third parties who offer registration services for their ccTLD.

2 ICANN maintains a list of accredited registrars for gTLDs at http://www.icann.org/registrars/accredited-list.html.
the domain name from the zone, or putting up a parked web page informing users that the domain name has expired.

Registries operating under agreements with ICANN may voluntarily provide additional measures to prevent cases where a domain name is cancelled as a result of mistake, inadvertence, or fraud (for example, [4]). A gTLD registry may hold a cancelled domain name registration for an additional 30-day Redemption Grace Period before deleting it from the database and thus making the name available to any would-be registrant.

The Redemption Grace Period [2] gives the registrant an extended opportunity to learn or detect that the domain name registration has expired. During this time, the domain name cannot be registered by any other party; however, the domain name is removed from the TLD's master zone file, the database that TLD domain name servers use to resolve domain names to Internet (IP) addresses. This action has a practical effect of preventing Internet users at large from accessing a web site operated in that domain or sending email to users in that domain. Often, if the domain name non-renewal is unintentional, a registrant can restore and renew the registration through the associated with this domain name. The registrar notifies the registry, the "hold" status of the domain name is removed, and (if the domain name is in active use) the domain name is restored to the TLD's master zone file.

After this 30-day period, a gTLD domain name is held in a 5-day delete pending period. During this period, the domain name is published in a pending delete list that identifies the date when the domain name will be made available for re-registration. Many parties in the community monitor the list of names that will become available for re-registration, and compete to get what they consider to be the most valuable domain names. Taking into account the various grace periods, most gTLD names become available for re-registration between 60 and 80 days of the original domain name expiry date.

Some important observations can be made from this overview of the domain name registration process:

1. Domain name registrations are temporary. While arrangements can be made to register a domain name over a span of many years, or to renew registrations automatically upon expiration, there is no way to establish "perpetual ownership".

2. Each domain name registration or renewal is an independent agreement between a registrar and registrant. Registrars are only obliged to notify the registration of a change in registration status of a domain name. Registrants are not obliged to notify any party who may refer to the domain name or rely on services (e.g., DNS name service) provided by systems assigned names from their domain names.

3. Contact information in the domain name registration record is used to resolve disputes as well as technical and administrative matters related to the domain name. If this information is not kept accurate, registries and registrars will not be able to

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1 Registrars may also register domain names in country-specific Top Level Domains, ccTLDs. Country code TLD managers set their own policy and decide whether to offer services such as the redemption grace period.
contact registrants with notices of renewal.

4. Domain name server information in the domain name registration record is useful in identifying the authoritative information for a domain (the master/zone file). If this information is not kept accurate, technical and administrative matters related to name service operation for the domain may not be attended to in a timely manner.

**Incidents**

The following incidents illustrate how a registrant can be adversely affected by allowing a domain name registration to expire, whether accidentally or intentionally. In the incidents, the new registrant used the name in a manner that harmed the reputation of the former registrant.

**Pack216.org**

A Roanoke, Virginia U.S.A. Cub Scout Pack 216 allowed its domain name registration to expire. Inseosite, Inc. registered the domain name when the applicable grace periods expired and subsequently used as a referral link to pornographic web sites. The domain name now resolves to a site called “Gute seiten aus dem erotik Internet” [sic]. The incident was reported by a local newspaper and subsequently distributed by the Associated Press on 16 April 2006 [5].

The incident proved embarrassing to all Boy and Cub Scouts organizations worldwide, whose seek to "instill in young people lifetime values and develop in them ethical character as expressed in the Scout Oath and Law", and to "serve […] communities and families with its quality, values-based program [6]". External web sites that provided hyperlinks to pack216.org were also affected.

In this incident,

- the domain name was originally registered by a former Cubmaster,
- the registration information was not updated when the Cubmaster changed,
- the organization did not receive electronic or other notice that the name was scheduled to expire March 2006, and
- the current Cubmaster was not aware that the Cub Pack web site remained operational, and

The party who registered pack216.org on behalf of the Roanoke Cub Pack also registered the domain name troop216.org on behalf of the Roanoke Boy Scout Troop. This registration also expired and was registered by Domibot, a company that engages in automated domain name acquisition for domain name speculation and revenue generation. The domain name troop216.org now resolves to a referral site for sponsored links, also known as pay-per-click advertising links.

**SIGCAT.ORG**

In 2002, the Special Interest Group on CD/DVD Applications and Technology, a 15-year-old nonprofit organization, failed to renew the domain name sigcat.org. The domain name was never deleted. Domains for Sale acquired SIGCAT’s domain name for a fee
and redirected traffic to Adult City, a traffic aggregator for porn sites [7]. SIGCAT now operates a web site under a new domain, dvda.org. As was the case with Cub Scout Pack 216, third parties providing links to SIGCAT's web site were alarmed to find links to adult and pornographic content embedded among their many web pages. SIGCAT attempted to recover the domain name, but as a not-for-profit, could afford the price "Domains for Sale" set on the name.

The domain name is currently registered by Neovert Co, which parks the site and is an affiliate of DomainSponsor, a company that specializes in domain name monetization of parked domain names. The site leverages persistent referring links to SIGCAT's original content by advertising Photo and Picture CD software.

In this incident,

- multiple parties in the organization were familiar with the domain name registration and renewal process, but no single party was responsible for renewing the registration, and no one followed through with the renewal, and
- the organization did not have processes in place to protect an asset that was valued in excess of $1000.00 USD the acquiring registrant had paid to a broker.

**Crisiscentersyr.org**

The Rape Crisis Center of Syracuse, NY USA merged with another organization. The new organization decided it did not need two domain names and allowed the registration for crisiscentersyr.org to expire. The domain name was acquired by a party in Brooklyn, NY USA, who copied the home page of the rape crisis center to his web site and appended text hyperlinks to sites offering pornographic material and sex toys. The site is no longer reachable at the domain name, but the embarrassment to the counseling organization and the emotional distress the deception inflicted on individuals who visited the web site seeking information, comfort and aid was significant.

In this incident

- the registrant elected not to renew a domain name registration,
- the domain name had sufficient keyword search popularity and site popularity to attract the interest of a domain name speculator or opportunist,
- the acquiring party exploited the popularity of the crisis center by intentionally copying the center's home web page to deceive visitors and increase the probability that the visitor would "click-thru" to a referrer page.

**Risks and Threats Associated with Expired Domain Name Registrations**

As the incidents in the preceding section illustrate, registrants who elect to or unintentionally allow domain name registrations to expire may experience unanticipated consequences. While we have offered only three examples, others have been reported in print and online publications. As is the case with many incidents that result in
reputational harm, it is likely that many incidents are neither detected nor reported. (For comparison purposes, the U.S. Federal Computer Incident Response Center, CERT, and other security agencies and advisories believe up to eighty (80) per cent of security incidents go unreported because the affected organizations choose to keep silent to avoid embarrassment and tarnish to image [8]).

**Reputational Harm**

The purpose or content of web sites operated by a registrant who acquires a domain name after its expiration may cause embarrassment to the former domain name registrant. As the crisiscentersyr.org and pack216.org incidents illustrate, a domain name previously used to host counseling services and resources can be used as a referral site for pornography by the new registrant.

An organization's ability to manage a web site and publish appropriate content is a public activity and a highly visible metric of the organization's IT competencies. In the SIGCAT.org incident, the organization's inability to coordinate domain name renewal across multiple internal administrative and technical contacts was disclosed publicly.

The nature of the World Wide Web exposes not only the former domain name registrant but other parties to risk of embarrassment, loss of credibility and deception as well. In the sigcat.org incident, organizations expected the SIGCAT web site to contain information relevant to the CD/DVD industry and provided referral links to SIGCAT for their visitors. The referral links instead resolved to pornography sites and extended the embarrassment and possible tarnish to reputation to unwitting third parties like Amtower & Company, one of many companies that incorporated hyperlinks to SIGCAT as a technology resource on its business-to-government web sites [7].

Even though the domain sigcat.org is presently parked, web users who still expect to visit the Special Interest Group on CD/DVD Applications and Technology land on a customized advertising page. While the deception in this scenario is not malicious, the visitor does not land at the expected site and the DVD Association has no way to redirect visitors to its site.

These and other similar incidents reveal that many registrants do not appreciate the risk of embarrassment, tarnish of brand, and loss of reputation associated with a domain name registration that is not renewed, because they do not realize that deleted domain names can be registered by another party, used for purposes different from and contrary to the purpose the former registrant intended, or acquired by a party for its speculative, pay-per-click or referral revenue potential. Even if no harm comes from non-renewal, registrants often do not consider that hyperlinks and other references to a domain name may not work, or may eventually resolve to an unconnected company registers the domain name (possibly leading to consumer confusion, loss of business to a competitor, etc.

**Commercial Considerations**

Many registrants are unaware that *domain names may accrue commercial value*. Domain names are routinely brokered and sold (and subsequently transferred), and domain names that have or can easily become popular can be a source of ongoing revenue. Registrants
are encouraged to learn about the secondary market for domain names to fully appreciate why opportunities for re-use and misuse exist. The following sections describe the secondary market for domain names to help registrants appreciate why domain names should be regarded as assets that have a marketable value, either through a brokered or direct sale, or as a means of generating recurring revenue.

**Domain Name Brokering**

A large post-registration or secondary market for domain names today supports *domain name speculation*, where registrants acquire domain names and try to resell them at a profit. Some domains are valued at hundreds of thousands of dollars or more. Others may have no marketable value whatsoever. How large a profit a registrant can earn depends on the characteristics of the domain name he has registered, a speculative market valuation of that name, and, of course, a buying party's willingness to pay. The buying and selling of registered domain names, however, has produced a trader's market, complete with brokering services.

The *valuation of a domain name* depends on a number of factors. While there is no uniform method of ascribing a value to a domain name, and no exhaustive list of metrics can be identified, many domain name valuation companies and domain name brokers use some or all of the following criteria to determine appraise the value of a domain name, should the registrant wish to sell and transfer the name to a purchasing party:

**Recognition.** The domain name is relevant to the market, is easy to remember, or the name is obvious (a commonly used word or phrase).

**Length.** 3-, 4- and 5-character domains are highly valued because they are easy to remember and type and often represent popular acronyms.

**Commercial potential.** The name has potential to develop into a brand or trademark, advertising campaign slogan, etc. “Generic” second-level labels are often placed in this category (e.g., pets, travel, phone, …).

**Composition.** Names with hyphens and numbers are less popular than names composed entirely of alphabetic characters. Names with substitute characters (e.g., 2morrow) and abbreviations (vinesthteatre) have less value than their alphabetic counterparts (tomorrow, vinestreettheatre) because the latter is more easily discovered by search engines than the former.

**Comparable sales.** The value of names with similar composition is used to speculate on the approximate range of values (e.g., securityexperts versus securityconsultants, pokerroom versus pokertable…).

**Age.** How long a domain name has been continuously registered can improve the value of the domain. Google, for instance, has filed a patent application for the generation of a search engine score based on one or more types of history data associated with a domain name [9].
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**TLD value.** Historically, domain names registered under the com TLD have the most value, while domain names under net and org follow (See Sidebar).

**Link Popularity.** A measure of the number of external sites that link to sites operated under a domain name. This metric can also gauge the quality of the sites that link to a domain name. Links to a domain name from popular sites weigh more heavily than links from lightly visited sites.

**Words and word counts.** Domain names composed of recognizable and searchable words have more value than arbitrarily composed and long names. Domain names of single words are highly valued.

**Mis-type likelihood.** Names that are similar to highly popular sites and might be visited frequently as a consequence of a typographical error (exampl.com versus example.com) or names that are identical to popular sites but in a different TLD (whitehouse.com versus whitehouse.gov) are highly valued.

**Pay per click (PPC) potential.** PPC potential measures the likelihood that a domain name can serve as a landing page for domain name monetization.

Domain name (domain traffic) monetization merits separate consideration by registrants.

**Domain Traffic Monetization**

Domain traffic monetization provides domain name registrants a means of deriving recurring revenue through advertising on a web site. The basic principle behind traffic monetization is simple. A registrant hosts a web page(s). On the page(s), the registrant includes an advertisement that provides a referring link to the advertising party. The hyperlink contains an identifier for the registrant. The advertiser pays the registrant a fee for referrals. Because the visitor clicks on the registrant's page(s), is forwarded through

### The 20 top level domains with the most page results in Google (from SEO by the Sea, 13 January 2006 [10])

<table>
<thead>
<tr>
<th>TLD</th>
<th>Description</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>.co</td>
<td>Commercial</td>
<td>4,860,000,000</td>
</tr>
<tr>
<td>.org</td>
<td>Noncommercial</td>
<td>1,950,000,000</td>
</tr>
<tr>
<td>.edu</td>
<td>educational_institutions</td>
<td>1,550,000,000</td>
</tr>
<tr>
<td>.gov</td>
<td>US Government</td>
<td>1,060,000,000</td>
</tr>
<tr>
<td>.uk</td>
<td>United Kingdom</td>
<td>473,000,000</td>
</tr>
<tr>
<td>.net</td>
<td>Network services</td>
<td>206,000,000</td>
</tr>
<tr>
<td>.ca</td>
<td>Canada</td>
<td>165,000,000</td>
</tr>
<tr>
<td>.de</td>
<td>Germany</td>
<td>145,000,000</td>
</tr>
<tr>
<td>.jp</td>
<td>Japan</td>
<td>139,000,000</td>
</tr>
<tr>
<td>.fr</td>
<td>France</td>
<td>96,700,000</td>
</tr>
<tr>
<td>.au</td>
<td>Australia</td>
<td>91,000,000</td>
</tr>
<tr>
<td>.us</td>
<td>United States</td>
<td>68,300,000</td>
</tr>
<tr>
<td>.ru</td>
<td>Russian Federation</td>
<td>67,900,000</td>
</tr>
<tr>
<td>.ch</td>
<td>Switzerland</td>
<td>62,100,000</td>
</tr>
<tr>
<td>.it</td>
<td>Italy</td>
<td>55,200,000</td>
</tr>
<tr>
<td>.nl</td>
<td>Netherlands</td>
<td>45,700,000</td>
</tr>
<tr>
<td>.se</td>
<td>Sweden</td>
<td>39,000,000</td>
</tr>
<tr>
<td>.no</td>
<td>Norway</td>
<td>32,300,000</td>
</tr>
<tr>
<td>.es</td>
<td>Spain</td>
<td>31,000,000</td>
</tr>
<tr>
<td>.mil</td>
<td>US Military</td>
<td>28,400,000</td>
</tr>
</tbody>
</table>

† These domains have restricted registrations.
the page(s) to an advertiser's page, and is paid for the referral, the process is often called a
pay-per-click or click-through revenue model.

This basic form of advertising is available to any registrant who creates an affiliate
account with distribution networks like Google (Google Adsense, [11] or Yahoo
Publisher Network [12]. A similar revenue model is provided by distribution networks
that operate search engines. The registrant includes a search box on its web pages. The
search box can be used to search not only the site but the World Wide Web. The search
engine uses the text the visitor enters in the search box on the registrant's site as a search
argument for content-related advertising. Advertisers pay the search engine for priority
placement in search results. When a visitor to the registrant's web page(s) clicks through
to a priority placement advertiser who is listed in the search results, the registrant again
receives a payment for the referral.

Domain traffic monetization is a highly competitive, multi-million dollar per year
business. Susquehanna Financial Group estimates that advertising on so-called "parked"
sites may have generated $400 million US in sales last year and estimates that sales could
reach $1 billion US by 2007 [13]. Advertising and pay-per-click (PPC) networks extend
the simple concepts illustrated above to attract advertisers who are not only interested in
broader market exposure but in placing their advertising in front of demographically
relevant audiences and consumers. The services assist advertisers by placing relevant ads
on affiliate the web pages of the PPC network's affiliates.

Complementing services are provided to PPC network affiliates in the form of custom
web or landing page design for individual domains and web sites. PPC networks employ
optimization services to determine the most relevant ads for a domain, based on such
criteria as domain name composition and behavior tracking of visitors to a web site using,
for example, ad-serving cookies.

This business model can be further leveraged by parties who register large numbers of
domains, and introduces another reason why so many domain names are valuable: PPC
affiliates can earn more by registering and then hosting or parking large numbers of
landing pages containing PPC advertising. Entrepreneurs now routinely register and re-
purpose hundreds or thousands of domain names as PPC landing pages as registrants fail
or choose not to renew their domain names. Since domain name registrations and domain
name parking are relatively inexpensive, these entrepreneurs put little of their investment
at risk when they build their landing page network.

Registrants should understand that, with the increasing popularity of domain traffic
monetization, any registered domain name that becomes available is a likely candidate
for a monetization entrepreneur.

**Domain Name Tasting**
gTLD registrants and their registrars are protected from mistyping and other errors when
they attempt to register domain names. Some registries allow registrars to cancel a name
within a period of five (5) calendar days following a registration request. The domain
name becomes immediately available for re-registration after cancellation during this
Add Grace Period.
Renewal Considerations for Domain Name Registrants

This timeframe creates an opportunity for a party to register a domain name, create and host a PPC landing page at that domain name, and test or "taste" whether the name will attract enough pay-per-click activity to be profitable. Many registrars have terms in their contracts with their registrants that allow them to engage in this kind of “tasting” for names that their customers fail to renew.

Parties who taste domains may elect to register domain to generate PPC revenue and return those with low likelihood of profitability to the available name pool for a full refund of the registration fee. By automating the model, however, it is possible for parties (primarily, domain name registrars and resellers) to taste tens thousands of domains, create and host PPC landing pages for each domain, collect PPC revenue during the Add Grace Period, and return all the domain names without incurring a fee. By taking the tasting concept to this extreme, one may generate considerable revenue with only a nominal investment in refundable registration fees, automation programming and network [14].

Domain name tasting creates enormous volumes of add and delete operations to Registry databases, especially in the popular generic TLDs (see sidebar under Domain Name Brokering). For example, analysis of nearly 600,000 domain name registrations in the COM TLD during the week of 27 March through 2 April 2006 revealed that over 92% of the names were released before the Add Grace Period expired.

The implications of domain name tasting for registrants are that it is highly probable that a domain name will be reused, and very possible that it will be reused again and again while domain name tasting is practiced. Registrants may find advertisements and referrals to the company’s competitors on the domain name they allowed to expire.

Findings

The Committee offers the following findings for consideration:

(1) The domain name registration process, and in particular, the renewal process, is not always fully understood by parties who register domain names.

(2) Policies and processes currently in place may protect registrants for up to seventy five (75) days following the expiration of a domain name registration, depending on circumstances, registrar, terms of registration agreement, etc. (For example, a registrar can delete a name immediately upon expiration if they choose, e.g., if they have not received payment for a renewal.) Thereafter, the domain name may be registered by another party whose intended use of the domain name may be inconsistent with the prior registrant's use.

(3) Subsequent use of domain names that are not renewed can result in reputational harm to the former registrant.

(4) A secondary market for domain names exists today; in this market, nearly all domain names have (some) value.
(5) Registrants should not allow a domain name to expire without investigating the commercial value of the name.

**Recommendations for Registrants**

Registrants who do not renew registered domain names, voluntarily or unintentionally, should be aware that every domain name is potentially of value to some party in today's vigorous secondary market for domain names and that new registrants may use a lapsed domain name in ways that prove harmful to the former registrant. All registrants, whether holders of one domain name or several, are encouraged to consider the following measures to minimize the risks associated with re-use of domain names.

1. **Keep domain name registration information accurate.** Many registrars and resellers notify one or more the contact parties in advance of a domain name registration expiration date. By keeping contact information accurate, registrants are less likely to fail to renew a domain name as a result of oversight. Registrants who do not want to make personal identifying information publicly available can still keep contact information accurate by taking advantage of privacy and proxy services offered by certain registrars.

2. **Establish a chain of accountability for domain name registration.** Each domain name registration record identifies at least three contact parties: the registrant, an administrative contact, and a technical contact. Make certain that these parties understand who is responsible and accountable for renewing domain name registrations. In circumstances where registrants outsource domain registration to a reseller (e.g., a service provider that bundles domain name registration with web hosting), make arrangements with the registrar to monitor your domain names, to notify you when your domain names are up for renewal or to automatically renew your domain names on your behalf.

3. **Choose registrars and resellers carefully.** Compare registration services offered by registrars and resellers. Register domains with registrars who offer multi-year registrations and auto-renewal processes. Domain name registration is a competitive business, and many registrars work hard to retain customers (registrants). Choose registrars who send multiple renewal notices by email (e.g., 90, 60, and 30 days prior to expiration), who send renewal notices by postal mail, who offer extended grace periods (e.g. up to 45 days after expiry), and who offer a service to redeem domain names for the Registrant from the Registry during the Registry Redemption Grace Period.

4. **Look for additional services.** Some registrars offer safeguards to prevent domain names from being released without signed consent or other forms of identification not subject to repudiation.

5. **Know the value of your domain.** In many cases, a domain name is an asset that has reputational value. Registrants are encouraged to consider whether reputational harm could result from a new party registering their released domain names.

6. **Consider options other than relinquishing a registered name.** Most (if not all) canceled names are viable targets for re-registration. The annual costs associated with renewing a domain name registration fee is small and even the cost of hosting a landing page can in many cases be reduced or offset entirely by participating in pay-per-click
advertising. Registrants who conclude the risks associated with releasing a domain name outweigh the cost should consider whether their own foray into domain name monetization can underwrite the cost of domain name registration and web hosting. Registrants who conclude that the profit they might realize outweighs the risk of reputational harm should consider selling the domain name in the secondary market.

(7) **Begin any research on domain name valuation and complete domain name transactions well before your name is due for renewal.** Once the domain name of a registrant crosses the expiry date, registrants have a limited amount of time before the name is made available for registration to any other party. After the expiry date, the only option available to registrants is to either renew the name at the same registrar they used, or allow it to expire. Registrants who intend to determine the value of their domain name(s) and take steps to capitalize on this value should budget sufficient time prior to expiration to execute their research and complete any transactions prior to the expiry date of the domain registration.
References


[8] Protecting America's Critical Infrastructure http://www.gsa.gov/Portal/gsa/ep/contentView.do?pageTypeId=8169&channelId=-13338&P=XAE&contentId=11797&contentType=GSA_BASIC


Appendix A
Acknowledgements

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Members of the Committee

Dr. Stephen Crocker has been appointed to chair the Security and Stability Advisory Committee. Dave Piscitello has been appointed Fellow to the Committee.

Alain Aina, Consultant
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Patrik Fältström, Cisco Systems
Johan Ihrén, Autonomica
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